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January 31, 2020

Mr. Chan Pongkhamsing
EPA Remedial Project Manager
U.S. EPA Region 10
1200 Sixth Avenue, ECL 111
Seattle, WA 98101

RE: Groundwater Sampling Schedule for 2020

Dear Mr. Pongkhamsing:

Please find enclosed three (3) copies of the *Groundwater Sampling Schedule for 2020*. It was also provided for discussion during an annual meeting on January 16, 2020. An electronic version of the report is also included. Modifications proposed in EPA's Optimization Review Report Remedial Process Optimization Study, dated November 25, 2019, were incorporated. This table is to supplant Table B-1 in the *Quality Assurance Project Plan for Site-Wide Remedial Actions* submitted to EPA in December 2015.

ATI plans to follow the attached sampling schedule in 2020, starting with the spring event in April 2020. If EPA has any concerns, please contact me as soon as possible.

If you have any questions, please feel free to contact me at 541.812.7376.

Sincerely,

Noel Mak

NPL Program Coordinator

Enclosures: 1. *Groundwater Sampling Schedule for 2020*

Table. Summary of Analysis for Groundwater **January 2020**

ATI Millersburg Operations, Oregon

Station	Well Type	Water Level		Sampling		Field Parameters		Laboratory Analysis										
								Metals		Anions/Cations				TDS	Radium 226/228	CVOCs	EISB MNA	PCP
		Spring	Fall	Spring	Fall	Spring	Fall	As, Cd, Ni	Other	Cl	NH_3	NO_3	F					
Extraction Area																		
Feed Makeup Area																		
EW-1	REC				x		x	x	Be	x	x		x	x	x			
EW-2	REC				x		x	x	Be	x	x		x	x	x			
EW-3	REC				x		x	x		x	x		x	x	x			x
PW-21A	P	x	x	x	x	x	x	x		x	x	x	x	x	x	VC & MIBK		
PW-22A	P		x		x		x	x		x	x		x	x	x	VC & MIBK		x
PW-23A	P	x	x	x	x	x	x	x	Be	x	x	x	x	x	x			x
PW-24A	P		x		x		x	x		x	x	x	x	x	x			
PW-27A	NHS		x		x		x	x		x	x	x	x	x	x			
PW-28A	HS	x	x	x	x	x	x	x	Be	x	x		x	x	x			
PW-50A	NHS		x		x		x	x	Be	x	x		x	x	x			x
PW-51A	NHS		x		x		x	x		x	x	x	x	x	x			
PW-52A	NHS		x		x		x	x	Be	x	x		x	x	x			
South Extraction Area																		
EW-4	REC																	
EW-5	REC																	
EW-6	REC																	
PW-25A	P																	
PW-26A	P																	
PW-29A	P																	
PW-47A	NHS																	
PW-48A	NHS																	
PW-49A	P																	
PW-57A	P																	
PW-96A	NHS		x		x		x	As								x		
PW-97A	P																	

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								Metals		Anions/Cations				TDS	Radium 226/228	CVOCs	EISB MNA	PCP
		Spring	Fall	Spring	Fall	Spring	Fall	As, Cd, Ni	Other	Cl	NH_3	NO_3	F					
Fabrication Area																		
Acid Sump Area																		
FW-3	REC			x	x	x	x					x	x			x		x
E-11	HS		x		x		x					x	x			x	EISB	
EI-5	HS		x		x		x					x	x			x	EISB	
FW-6	NHS		x		x		x					x	x			x	MNA	
I-2	HS		x		x		x					x	x			x	EISB	
I-3	HS		x		x		x					x	x			x	EISB	
PW-10	NHS		x		x		x						x			x		
PW-11	HS		x		x		x					x	x			x	MNA	
PW-12	NHS		x	x	x	x	x					x	x			x	MNA	
PW-13	HS		x		x		x					x	x			x	EISB	
PW-14	NHS		x															
PW-15AR	P		x															
PW-16A	NHS	x	x	x	x	x	x					x	x			x	MNA	
PW-19A	NHS	x	x	x	x	x	x					x	x			x		
PW-32A	NHS		x															
PW-33A	NHS		x															
PW-34A	NHS		x															
PW-76A	P	x	x	x	x	x	x					x	x			x	MNA	
PW-77A	P	x	x	x	x	x	x					x	x			x	EISB	
PW-78A	P	x	x	x	x	x	x					x	x			x	EISB	
PW-79A	P	x	x	x	x	x	x					x	x			x	MNA	
PW-80A	NHS		x		x		x									x		
PW-81A	NHS		x		x		x									x		
PW-82A	NHS		x		x		x					x	x			x		x
PW-98A	NHS		x	x	x	x	x					x	x			x	MNA	

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								Metals		Anions/Cations				TDS	Radium 226/228	CVOCs	EISB MNA	PCP
		Spring	Fall	Spring	Fall	Spring	Fall	As, Cd, Ni	Other	Cl	NH_3	NO_3	F					
PW-99A	NHS		x	x	x	x	x					x	x			x	MNA	
TMW-3	HS		x		x		x	As	Be			x	x			x		
TMW-5	HS		x		x		x	As	Be			x	x			x	EISB	
Ammonium Sulfate Storage Area																		
FW-5	REC				x		x				x	x	x			x		
PW-01A	NHS		x		x		x				x					x		x
PW-03A	NHS		x		x		x				x	x				x		x
PW-83A	NHS		x		x		x				x					x		x
PW-89A	NHS	x	x	x	x	x	x				x	x	x			x		x
PW-92A	NHS		x		x		x									x		
Former Crucible Cleaning Area																		
FW-1	REC			x	x	x	x									x		
FW-7	REC		x		x		x	As								x		
MW-01A	NHS	x	x	x	x	x	x									x		
MW-02A	NHS		x		x		x	As								x		
MW-03A	NHS		x		x		x	As				x				x		x
MW-04A	NHS		x		x		x									x		
MW-05A to MW-11A	P		x															
PW-31A	NHS		x		x		x					x				x		x
PW-45A	NHS		x		x		x									x		
PW-68A	NHS	x	x	x	x	x	x					x				x		x
PW-69A	NHS		x		x		x	As					x			x	EISB	
PW-70AR	NHS		x		x		x									x		
PW-71A	NHS		x		x		x									x		
PW-72A	NHS		x	x	x	x	x	As								x		
PW-93A	HS		x		x		x	As								x	EISB	

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								Metals		Anions/Cations				TDS	Radium 226/228	CVOCs	EISB MNA	PCP
		Spring	Fall	Spring	Fall	Spring	Fall	As, Cd, Ni	Other	Cl	NH_3	NO_3	F					
PW-94A	HS		x		x		x	As					x			x	EISB	
PW-95A	HS		x		x		x						x			x	EISB	
PW-100A	HS		x		x		x									x	EISB	
PW-101A	NHS		x		x		x									x	EISB	
Material Recycle Area																		
FW-2	REC			x	x	x	x									x		
PW-20A	NHS		x															
PW-42A	NHS		x		x		x									x		
PW-84AR	NHS		x		x		x									x		
PW-85A	NHS		x		x		x									x		
PW-86A	NHS		x		x		x									x		
PW-87A	NHS		x		x		x									x		
PW-88A	NHS		x	x	x	x	x									x		
PZ-01A	NHS		x															
Dump Master Area																		
FW-4	REC			x	x	x	x									x		
PW-30A	HS	x	x	x	x	x	x									x		
PW-46A	NHS		x		x		x									x		
PW-73B	NHS		x	x	x	x	x									x		
PW-73A	NHS		x															
PW-74A	NHS		x															
PW-74B	NHS		x		x		x									x		
PW-75A	NHS	x	x	x	x	x	x									x		
PW-91A	NHS		x	x	x	x	x									x		

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								Metals		Anions/Cations				TDS	Radium 226/228	CVOCs	EISB MNA	PCP
		Spring	Fall	Spring	Fall	Spring	Fall	As, Cd, Ni	Other	Cl	NH_3	NO_3	F					
Solids Area																		
PW-07	NA		x															
PW-09	NA		x		x		x			x								
PW-17B	NA		x		x		x			x								
PW-18B	NA		x		x		x	As		x								
PWA-1	NA		x		x		x			x								
PWA-2	NA		x		x		x			x								
PWB-1	NA		x		x		x	As		x								
PWB-2	NA		x		x		x	As		x								
PWB-3	NA		x		x		x			x			x		x			
PWC-1	NA		x															
PWC-2	NA		x															
PWD-1	NA		x		x		x	As		x								
PWD-2	NA		x		x		x			x								
PWE-1	NA		x		x		x	As		x			x					
PWE-2	NA		x		x		x			x			x					
PWF-1	NA		x		x		x		Cn	x								
PWF-2	NA		x		x		x		Cn	x								

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								Metals		Anions/Cations				TDS	Radium 226/228	CVOCs	EISB MNA	PCP
		Spring	Fall	Spring	Fall	Spring	Fall	As, Cd, Ni	Other	Cl	NH_3	NO_3	F					
Farm Ponds Area																		
PW-40A	NA																	
PW-40S	NA																	
PW-43A	NA																	
PW-44A	NA																	
PW-64A	NA																	
PW-64S	NA																	
PW-65A	NA																	
PW-65S	NA																	
PW-66A	NA																	
PW-66S	NA																	
PW-67S	NA																	
PW-68A	NA																	
PW-104S	NA	x		x		x										x		
PW-105S	NA	x		x		x										x		
PW-106S	NA																	
PW-107S	NA	x		x		x										x		
PW-108S	NA																	
SD	NA																	
WD1	NA																	
WD2	NA																	

Notes:

As = total arsenic

Be = total beryllium

Cd = total cadmium

Cl = chloride

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								Metals		Anions/Cations				TDS	Radium 226/228	CVOCs	EISB MNA	PCP
		Spring	Fall	Spring	Fall	Spring	Fall	As, Cd, Ni	Other	Cl	NH_3	NO_3	F					

Cn = cyanide

CVOCs = chlorinated volatile organic compounds

EISB = enhanced in-situ bioremediation (CVOC, NO_3, Cl, SO_4, Alkalinity, MEE)

F = fluoride

HS = hot spot

MNA = monitored natural attenuation (CVOC, NO_3, Cl, SO_4, Alkalinity)

MEE = methane, ethane, ethene

NA = not applicable

NHS = non-hot spot

Ni = total nickel

NO_3 = nitrate

NH_3 = ammonia

P = perimeter

PCP = pentachlorophenol

SO_4 = sulfate

TDS = total dissolved solids

Table B-1 displays a summary of analyses for routine groundwater monitoring. ATI will prepare an addendum to the table and submit it to EPA for special monitoring events.

Extraction wells currently operating are sampled on a quarterly basis to evaluate system effectiveness and the volume of mass removed.